## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

**Claim 1 (currently amended).** A compound selected from those of formula (I):

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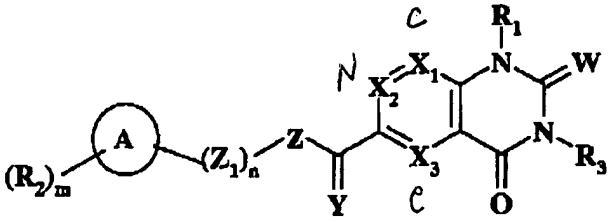


(I)

in which:

$R_1$ represents hydrogen, ~~a group selected from:~~

- ~~hydrogen, amino,~~
- ~~$(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_3$-$C_6)$alkynyl, mono$(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, di$(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, aryl, aryl$(C_1$-$C_6)$alkyl, heterocycle, and 3- to 6-membered cycloalkyl$(C_1$-$C_6)$alkyl, these groups being unsubstituted or substituted with one or more groups, which may be identical or different, selected from amino, $(C_1$-$C_6)$alkyl, cyano, halo$(C_1$-$C_6)$alkyl, $C(=O)OR_4$, $OR_4$ and $SR_4$, in which $R_4$ represents hydrogen or $(C_1$-$C_6)$alkyl,~~

W represents an oxygen atom, a sulphur atom, or a group =N-R', in which R' represents $(C_1$-$C_6)$alkyl, hydroxyl, or cyano,

$X_1$ and $X_3$ represent, independently of each other, a group -C-$R_6$ in which $R_6$ represents a group selected from hydrogen, $(C_1$-$C_6)$alkyl, amino,

mono($C_1$-$C_6$)alkylamino, di($C_1$-$C_6$)alkylamino, hydroxyl, ($C_1$-$C_6$)alkoxy, and halogen;

$X_2$ is nitrogen;

Y represents a group selected from oxygen atom, sulphur atom, -NH, and -N($C_1$-$C_6$)alkyl,

Z represents:

- an oxygen atom, a sulphur atom,
- or a group $-NR_7$ in which $R_7$ represents a group selected from hydrogen, ($C_1$-$C_6$)alkyl, aryl($C_1$-$C_6$)alkyl, cycloalkyl, aryl, and heteroaryl, and
- when Y is an oxygen atom, a sulphur atom, or a group -N($C_1$-$C_6$)alkyl, Z optionally represents a carbon atom which is unsubstituted or substituted with a ($C_1$-$C_6$)alkyl, an aryl, an aryl($C_1$-$C_6$)alkyl, an aromatic or non-aromatic heterocycle or a cycloalkyl,

n is an integer from 1 to 8 inclusive,

$Z_1$ represents $-CR_8R_9$ wherein $R_8$ and $R_9$, independently of each other, represent a group selected from hydrogen, ($C_1$-$C_6$)alkyl, halo($C_1$-$C_6$)alkyl, halogen, amino, $OR_4$, $SR_4$ or $C(=O)OR_4$ in which $R_4$ represents a hydrogen or ($C_1$-$C_6$)alkyl, and

- when n is greater than or equal to 2, the hydrocarbon chain $Z_1$ optionally contains one or more multiple bonds,
- and/or one of the carbon atoms in the hydrocarbon chain $Z_1$ may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, or a nitrogen atom which is unsubstituted or substituted with a ($C_1$-$C_6$)alkyl,
- and when one of the carbon atoms in the hydrocarbon chain $Z_1$ is replaced with a sulphur atom which is unsubstituted or substituted with one or two oxygen

atoms, then the group –C(=Y)-Z- optionally may be absent in the general formula (I),

A represents an ~~a group selected from :~~

- aromatic or non-aromatic, 5- or 6-membered monocycle comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, ~~and~~
- ~~bicycle, composed of two aromatic or non-aromatic, 5- or 6-membered rings, which may be identical or different, comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur,~~

m is an integer from 0 to 7 inclusive,

the group(s) $R_2$, which may be identical or different, is (are) selected from $(C_1-C_6)$alkyl, halogen, -CN, $NO_2$, $SCF_3$, $-CF_3$, $-OCF_3$, $-NR_{10}R_{11}$, $-OR_{10}$, $-SR_{10}$, $SOR_{10}$, $-SO_2R_{10}$, $-(CH_2)_kSO_2NR_{10}R_{11}$, $-X_5(CH_2)_kC(=O)OR_{10}$, $-(CH_2)_kC(=O)OR_{10}$, $-X_5(CH_2)_kC(=O)NR_{10}R_{11}$, $-(CH_2)_kC(=O)NR_{10}R_{11}$, and $-X_4-R_{12}$ in which:

- $X_5$ represents a group selected from oxygen, sulphur optionally substituted by one or two oxygen atoms, and nitrogen substituted by hydrogen or $(C_1-C_6)$alkyl,

- k is an integer from 0 to 3 inclusive,

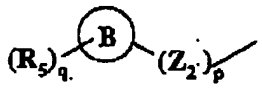
- $R_{10}$ and $R_{11}$, which may be identical or different, are selected from hydrogen and $(C_1-C_6)$alkyl,

- $X_4$ represents a group selected from single bond, $-CH_2-$, oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by hydrogen atom or $(C_1-C_6)$alkyl group,

- $R_{12}$ represents an aromatic or non-aromatic, heterocyclic or non-heterocyclic, 5- or 6-membered ring which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from $(C_1$-$C_6)$alkyl, halogen, hydroxyl and amino, and when the ring is heterocyclic, it comprises from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur;

$R_3$ represents ~~a group selected from:~~

- ~~hydrogen,~~
- ~~$(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$alkenyl, $(C_3$-$C_6)$alkynyl, these groups being unsubstituted or substituted with one or more groups, which may be identical or different, selected from amino, cyano, halo$(C_1$-$C_6)$alkyl, cycloalkyl, $C(=O)NR_{10}R_{11}$, $C(=O)OR_{10}$, $OR_{10}$, and $SR_{10}$, in which $R_{10}$ and $R_{11}$, which may be identical or different, represent hydrogen or $(C_1$-$C_6)$alkyl,~~
- ~~and~~ the group of formula :



✓ in which p is an integer from 0 to 8 inclusive,

✓ $Z_2$ represents $-CR_{13}R_{14}$ wherein $R_{13}$ and $R_{14}$, independently of each other, represent a group selected from hydrogen, $(C_1$-$C_6)$alkyl, phenyl, halo$(C_1$-$C_6)$alkyl, halogen, amino, $OR_4$, $SR_4$ and $-C(=O)OR_4$ in which $R_4$ represents hydrogen or $(C_1$-$C_6)$alkyl, and

- when p is greater than or equal to 2, the hydrocarbon chain $Z_2$ optionally contains one or more multiple bonds,
- and/or one of the carbon atoms in the hydrocarbon chain $Z_2$ may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, a nitrogen atom which is unsubstituted or substituted with a $(C_1$-$C_6)$alkyl, or a carbonyl group,

✓ B represents a group selected from:

- an aromatic or non-aromatic 5- or 6-membered monocycle comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, and
- a bicycle, composed of two aromatic or non-aromatic, 5- or 6-membered rings, which may be identical or different, comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur,

✓ q is an integer from 0 to 7 inclusive,

✓ the group(s) $R_5$, which may be identical or different, is (are) selected from $(C_1\text{-}C_6)$alkyl, halogen, CN, $NO_2$, $CF_3$, $OCF_3$, $-(CH_2)_kNR_{15}R_{16}$, $-N(R_{15})C(=O)R_{16}$, $-N(R_{15})C(=O)OR_{16}$, $-N(R_{15})SO_2R_{16}$, $-N(SO_2R_{15})_2$, $-OR_{15}$, $-S(O)_{k1}R_{15}$, $-SO_2\text{-}N(R_{15})\text{-}(CH_2)_{k2}\text{-}NR_{16}R_{17}$, $-(CH_2)_kSO_2NR_{15}R_{16}$, $-X_7(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)OR_{15}$, $-C(=O)O\text{-}(CH_2)_{k2}\text{-}NR_{15}R_{16}$, $-C(=O)O\text{-}(CH_2)_{k2}\text{-}C(=O)OR_{18}$, $-X_7(CH_2)_kC(=O)NR_{15}R_{16}$, $-(CH_2)_kC(=O)NR_{15}R_{16}$, $-R_{19}\text{-}C(=O)OR_{15}$, $-X_6\text{-}R_{20}$, and $-C(=O)\text{-}R_{21}\text{-}NR_{15}R_{16}$ in which :

- $X_7$ represents a group selected from oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by a hydrogen atom or a $(C_1\text{-}C_6)$alkyl group,

- k is an integer from 0 to 3 inclusive,

- k1 is an integer from 0 to 2 inclusive,

- k2 is an integer from 1 to 4 inclusive,

- $R_{15}$, $R_{16}$ and $R_{17}$, which may be identical or different, are selected from hydrogen and $(C_1$-$C_6)$alkyl,

- $R_{18}$ represents a group selected from $(C_1$-$C_6)$alkyl, $-R_{21}$-$NR_{15}R_{16}$, $-R_{21}$-$NR_{15}$-$C(=O)$-$R_{21}$-$NR_{16}R_{17}$, and $-C(=O)O$-$R_{21}$-$NR_{15}R_{16}$ in which $R_{21}$ represents a linear or branched $(C_1$-$C_6)$alkylene group, and $R_{15}$, $R_{16}$ and $R_{17}$ are as defined hereinbefore,

- $R_{19}$ represents a $(C_3$-$C_6)$cycloalkyl group,

- $X_6$ represents a group selected from single bond, $-CH_2-$, oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by hydrogen atom or $(C_1$-$C_6)$alkyl group,

- $R_{20}$ represents an aromatic or non-aromatic, heterocyclic or non-heterocyclic, 5- or 6-membered ring, which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from $(C_1$-$C_6)$alkyl, halogen, hydroxyl, oxo, cyano, tetrazole, amino, and $-C(=O)OR_4$ wherein $R_4$ represents hydrogen or $(C_1$-$C_6)$alkyl, and, when the ring is heterocyclic, it comprises from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur,

~~with the proviso that when $X_1$ represents a nitrogen atom, $X_2$ cannot represent a carbon atom substituted with a methyl group or with $NH$-$CH_3$;~~

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claim 2 (canceled).**

**Claim 3 (currently amended).** A compound of formula (I) according to Claim 1 characterized in that:

n is an integer from 1 to 6 inclusive,

$Z_1$ represents $-CR_8R_9$ wherein $R_8$ represents a hydrogen atom and $R_9$ represents a hydrogen atom or a methyl group, and

- when n is greater than or equal to 2, the hydrocarbon chain $Z_1$ optionally contains a double bond,
- or, one of the carbon atoms in the hydrocarbon chain $Z_1$ may be replaced with an oxygen atom, or a sulphur atom which is unsubstituted or substituted with one or two oxygens,

A represents a group selected from phenyl, pyridyl, thienyl, imidazolyl, furyl, and piperidyl, ~~1,3-benzodioxolyl, benzodioxinyl, benzothienyl, benzofuryl, benzofurazanyl, 2,1,3-benzothiadiazolyl, and indolyl,~~

m is an integer from 0 to 7 inclusive,

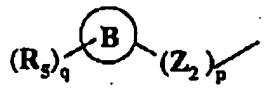
the group(s) $R_2$, which may be identical or different, is (are) selected from $(C_1\text{-}C_6)$alkyl, halogen, -CN, $-CF_3$, $-OCF_3$, $-NR_{10}R_{11}$, $-OR_{10}$, $-SR_{10}$, $-SO_2R_{10}$, $-(CH_2)_kSO_2NR_{10}R_{11}$, $-X_5(CH_2)_kC(=O)OR_{10}$, $-(CH_2)_kC(=O)OR_{10}$, $-X_5(CH_2)_kC(=O)NR_{10}R_{11}$, $-(CH_2)_kC(=O)NR_{10}R_{11}$, and $-X_4\text{-}R_{12}$ in which:

- ✓ $X_5$ represents O, S or NH,
- ✓ k is an integer from 0 to 3 inclusive,
- ✓ $R_{10}$ and $R_{11}$, identical or different, are selected from hydrogen and $(C_1\text{-}C_6)$alkyl,
- ✓ $X_4$ represents $-CH_2-$, or an oxygen atom,
- ✓ $R_{12}$ represents a phenyl group which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from $(C_1\text{-}C_6)$alkyl, halogen, hydroxyl and amino,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claim 4 (currently amended).** A compound of formula (I) according to Claim 1 characterized in that:

$R_3$ represents ~~hydrogen, $(C_1$-$C_6)$alkyl or~~ the group of formula:



- in which p is an integer from 0 to 3 inclusive,

- $Z_2$ represents $-CR_{13}R_{14}$ wherein $R_{13}$ and $R_{14}$, independently of each other, represent a group selected from hydrogen, methyl, or phenyl, and
  - when p is greater than or equal to 2, the hydrocarbon chain $Z_2$ optionally contains one double bond,
  - or one of the carbon atoms in the hydrocarbon chain $Z_2$ may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, a nitrogen atom which is unsubstituted or substituted with a $(C_1$-$C_6)$alkyl, or a carbonyl group,

- B represents a group selected from phenyl, pyridyl, thienyl, imidazolyl, furyl, 1,3-benzodioxolyl, benzodioxinyl, benzothienyl, benzofuryl, 2,1,3-benzothiadiazolyl, benzofurazanyl, naphthyl, and indolyl,

- q is an integer from 0 to 3 inclusive,

- the group(s) $R_5$, which may be identical or different, is (are) selected from $(C_1$-$C_6)$alkyl, halogen, CN, $NO_2$, $CF_3$, $OCF_3$, $-(CH_2)_kNR_{15}R_{16}$, $-N(R_{15})C(=O)R_{16}$, $-(R_{15})C(=O)OR_{16}$, $-N(R_{15})SO_2R_{16}$, $-N(SO_2R_{15})_2$, $-OR_{15}$, $-S(O)_{k1}R_{15}$, $-SO_2-N(R_{15})-(CH_2)_{k2}-NR_{16}R_{17}$, $-(CH_2)_kSO_2NR_{15}R_{16}$,

$-X_7(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)OR_{15}$, $-C(=O)O-(CH_2)_{k2}-NR_{15}R_{16}$, $-X_7(CH_2)_kC(=O)NR_{15}R_{16}$, and $-(CH_2)_kC(=O)NR_{15}R_{16}$ in which :

- $X_7$ is S, O or NH,
- k is an integer from 0 to 3 inclusive,
- k1 is an integer from 0 to 2 inclusive,
- k2 is an integer from 1 to 4 inclusive,
- $R_{15}$, $R_{16}$ and $R_{17}$, which may be identical or different, are selected from hydrogen and $(C_1-C_6)$alkyl,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claims 5 to 8 (canceled).**

**Claim 9 (previously presented).** A compound of formula (I) according to Claim 1 characterized in that :
W represents an oxygen atom,
Y represents an oxygen atom,
Z represents a NH group,
$Z_1$ represents a methylene group,
and n is equal to one,
optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claims 10 and 11 (canceled).**

**Claim 12 (previously presented).** A compound of formula (I) according to Claim 1 characterized in that :
$X_1$ and $X_3$ represent each a -CH group,
and

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claim 13 (currently amended).** A compound of formula (I) according to Claim 1 characterized in that :

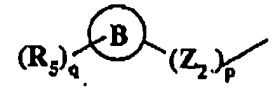
A represents a group selected from phenyl, and pyridyl, ~~1,3-benzodioxolyl, and benzofurazanyl,~~

m is equal to 0 or 1,

and $R_2$ represents a group selected from $(C_1-C_6)$alkoxy, hydroxy, halogen, and $(C_1-C_6)$thioalkoxy,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claim 14 (previously presented).** A compound of formula (I) according to Claim 1 characterized in that $R_3$ represents a group of formula :



in which:

p is equal to 1,

$Z_2$ represents a methylene group,

B represents a group selected from phenyl, pyridyl, 1,3-benzodioxolyl, and benzofurazanyl,

q is an integer from 0 to 2 inclusive,

and $R_5$ represent(s) a group selected from halogen, CN, $-(CH_2)_kNR_{15}R_{16}$, $-S(O)_{k1}R_{15}$, $-(CH_2)_kSO_2NR_{15}R_{16}$, $-(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)NR_{15}R_{16}$, and $-X_6-R_{20}$, in which :

- k is an integer from 0 to 1 inclusive,
- k1 is an integer from 0 to 2 inclusive,
- $R_{15}$ and $R_{16}$, which may be identical or different, are selected from hydrogen and $(C_1-C_6)$alkyl,

- $X_6$ represents a bond,
- $-R_{20}$ represents a 5-membered heterocyclic ring comprising from 3 to 4 heteroatoms selected from oxygen and nitrogen and optionally substituted with a methyl group or an oxo group,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

**Claim 15 (currently amended).** A compound of formula (I) according to Claim 1, which is:

~~1,3-Dimethyl-2,4-dioxo-1,2,3,4-tetrahydro-pyrido[3,4-*d*]pyrimidine-6-carboxylic acid (1,3-benzodioxol-5-ylmethyl)-amide,~~

- ~~3-Benzyl-1-methyl-2,4-dioxo-1,2,3,4-tetrahydro-pyrido[3,4-*d*]-pyrimidine-6-carboxylic acid (1,3-benzodioxol-5-ylmethyl)-amide,~~
- Methyl 4-[6-(4-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2*H*-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoate,
- 4-[6-(4-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2*H*-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoic acid,
- 4-[6-(3-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2*H*-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoic acid, and
- 3-(4-Cyano-benzyl)-1-methyl-2,4-dioxo-1,2,3,4-tetrahydro-pyrido[3,4-*d*]pyrimidine-6-carboxylic acid 4-methoxy-benzylamide.

**Claims 16 to 28 (canceled).**

**Claim 29 (currently amended).** A pharmaceutical composition comprising a compound according to any one of ~~Claims 1, 3, 4, 8, 9, 11-15~~ Claims 1, 3, 4, 9, or 11-15 inclusive and a pharmaceutically acceptable excipient.

**Claims 30 and 36 (canceled).**

**Claim 37 (currently amended).** A method for treating a disease or complaint involving a therapy by inhibition of MMP-13 characterized in that the disease or the complaint is arthritis, the method comprising the administration of an effective amount of a compound according to any one of ~~Claims 1, 3, 4, 8, 9, 11-16~~ Claims 1, 3, 4, 9, or 11-15 inclusive to a patient having arthritis.

**Claim 38 (currently amended).** A method for treating according to Claim 37, ~~characterized~~ characterized in that the disease is osteoarthritis.

**Claim 39 (currently amended).** A method for treating according to Claim 37, ~~characterized~~ characterized in that the disease is rheumatoid arthritis.